

EMERGENCY AIRWORTHINESS DIRECTIVE



REGULATORY SUPPORT DIVISION
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U.S. Department
of Transportation
**Federal Aviation
Administration**

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DATE: **July 19, 2000**
2000-15-51

Note: This copy corrects a typo regarding the Service Bulletin number.

Transmitted as follows is emergency airworthiness directive (AD) 2000-15-51, for the attention of all owners and operators of Cessna Model 560XL airplanes.

Background

The FAA has received reports of two occurrences of improper aileron function discovered during preflight checks. In the first occurrence, the ailerons did not operate within their full range; it was later discovered that the fairlead tube was contacting the aft cable sector. In the second occurrence, the aileron jammed in a ratcheting-type motion and could not be returned to neutral.

If either aileron cable fairlead tube slides aft through its clamps while the airplane is in service, it could jam or otherwise interfere with the aileron cable sector at approximately 60 percent aileron travel (either left roll or right roll). The aileron cannot be returned to neutral from 60 percent or greater aileron travel. This condition can occur only if 60 percent or greater aileron travel is commanded. In certain circumstances, roughness or unusual friction may be detected in the aileron system at high control wheel deflections prior to jamming. Interference between the aileron cable fairlead tube and the aileron cable sector, if not corrected, could result in loss of control of the airplane.

Explanation of Relevant Service Information

The FAA has reviewed and approved Cessna Service Bulletin 560XL-27-10, including Service Bulletin Supplemental Data, dated July 13, 2000, which describes procedures for modification of the aileron fairlead tubes. The modification involves trimming the fairlead tube and cementing the clamp to the tube with fuel tank sealer.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of this same type design, this airworthiness directive is issued to require:

- For airplanes having serial numbers -5002 through -5093 inclusive: repetitive general visual inspections to measure the amount the aileron fairlead tube protrudes beyond the clamp at the aft aileron sector.
- For airplanes having serial numbers -5002 through -5093 inclusive: modification of the aileron fairlead tubes, which terminates the repetitive inspections to measure the tube protrusion.
- For all airplanes: repetitive general visual inspections, and corrective actions, if necessary, to ensure that the fairlead tube remains flush with the clamp.

The modification is required to be accomplished in accordance with the service bulletin described previously.

Differences Between the AD and the Relevant Service Information

Because of the severity of the identified unsafe condition, this AD requires two additional actions not specified by the service bulletin.

Although this AD and the service bulletin specify the same compliance time for the modification, this AD adds a requirement for repetitive inspections prior to further flight and thereafter at intervals of 5 flight cycles until the modification is accomplished. The FAA has determined that the compliance time of 25 flight hours or 30 days specified in the service bulletin for accomplishment of the modification would not address the identified unsafe condition in a timely manner. In developing appropriate actions and compliance times for this AD, the FAA considered not only the manufacturer's recommendation, but the degree of urgency

associated with addressing the subject unsafe condition, the average utilization of the affected fleet, and the time required to perform the inspection (1 hour). In light of these factors, the FAA finds that repetitive inspections performed at the times specified previously (until accomplishment of the modification) are necessary and represent an appropriate interval of time allowable for affected airplanes to continue to operate without compromising safety.

Also, this AD adds a requirement for repetitive general visual inspections following the modification to ensure that the bond has not failed. The FAA has determined that these inspections are necessary until engineering data are collected that can verify the durability of the modification.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this AD effective in less than 30 days.

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958) pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this AD.

AD 2000-15-51 CESSNA AIRCRAFT COMPANY: Docket No. 2000-NM-255-AD.

Applicability: Model 560XL airplanes, certificated in any category; serial numbers (S/N) -5002 and subsequent.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent interference between the aileron cable fairlead tube and the aileron cable sector, which could result in loss of control of the airplane, accomplish the following:

Pre-modification Inspection

(a) For airplanes having S/N -5002 through -5093 inclusive: Before the next flight after receipt of this AD, perform a general visual inspection to measure how far the aileron fairlead tube protrudes beyond the clamp at the aft aileron sector. This area of the airplane is depicted in Figure 1 of Cessna Service Bulletin SB560XL-27-10, including Service Bulletin Supplemental Data, dated July 13, 2000. Thereafter, repeat the inspection at intervals not to exceed 5 flight cycles until accomplishment of paragraph (b) of this AD. If, during any inspection required by this paragraph, more than one-half inch of the tube is found to protrude, prior to further flight, accomplish the actions specified by paragraph (b) of this AD.

NOTE 2: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Modification

(b) For airplanes having S/N -5002 through -5093 inclusive: Within 25 flight hours or 30 days after receipt of this AD, whichever occurs first, modify the aileron fairlead tubes (including trimming the fairlead tube and cementing the clamp to the tube with fuel tank sealer) in accordance with Cessna Service Bulletin SB560XL-27-10, including Service Bulletin Supplemental Data, dated July 13, 2000. Allow 2 hours of cure time before further flight. Accomplishment of the modification terminates the repetitive inspection requirement of paragraph (a) of this AD.

Post-modification Inspection

(c) For all airplanes: At the applicable time specified by paragraph (c)(1) or (c)(2) of this AD, perform a general visual inspection to determine if the fairlead tube is flush with the clamp. This area of the airplane is depicted in Figure 1 of Cessna Service Bulletin SB560XL-27-10, including Service Bulletin Supplemental Data, dated July 13, 2000. If the tube is not flush, prior to further flight, repeat the actions specified by paragraph (b) of this AD, and notify the Manager, Wichita Aircraft Certification Office (ACO), FAA, Mid-Continent Airport, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4106; fax (316) 946-4407. Repeat the inspection thereafter at intervals not to exceed 110 flight hours.

(1) For airplanes having S/N -5002 through -5093 inclusive: At the next scheduled maintenance or within 110 flight hours after the modification required by paragraph (b) of this AD, whichever occurs first.

(2) For S/N -5094 and subsequent: At the next scheduled maintenance or within 110 flight hours after receipt of this AD, whichever occurs first.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Wichita ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Wichita ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(f) AD 2000-15-51, issued on July 19, 2000, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT: Shane Bertish, Aerospace Engineer, Systems and Propulsion Branch, ACE-116W, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4156; fax (316) 946-4407.

Issued in Renton, Washington, on July 19, 2000.

D.L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.